

**REMARKS*****Introduction***

Receipt of the Office Action mailed October 19, 2006 is acknowledged. No new matter has been added. Entry of the amendment and favorable reconsideration are earnestly solicited.

***Restriction Requirement/Election***

The Office Action repeated the restriction requirement and further made it final. Applicant continues to respectfully traverse and request reconsideration.

Other than the assertion, without any explanation, that these various SNPs of the same coding sequence constitute independent and distinct inventions, the Office Action provides no justification of such an election requirement.

According to the Office Action, the so-called groups may have one SNP or a combination of up to 5 SNPs in one haplotype. The Office Action states that it is acceptable to examine the haplotype containing 5 SNPs (in effect examining all five SNPs one at a time), but at the same time asserts that examining *less than* 5 would be burdensome. This is illogical and illustrates the impropriety of the requirement.

With regard to the MPEP §803.4 quoted in applicant's previous response, the Office Action focused on the "up to ten sequence" language but completely ignored the emphasized section where it is stated that nucleotide sequences encoding the same protein are not distinct or independent and must be examined together.

For the above reason, applicants respectfully request that the restriction requirement be withdrawn and all combinations of the SNPs be examined together.

Also, the Office Action cites 37 C.F.R. § 1.144 and MPEP § 821.01 to demand that applicant cancel non-elected claims. It is respectfully submitted that this demand represents a mistaken reading of the rules, which require cancellation of non-elected claims only when the

Office Action has been made final, not merely when the restriction requirement has been made final. These non-elected claims are needed, inter alia, for a petition of the final restriction requirement (see MPEP § 818.03(c)).

***Claim Rejection under 35 U.S.C. § 112, ¶ 1***

The Office Action also rejected claim 12 as not enabled. It is respectfully submitted that this rejection is improper and should be withdrawn.

Claim 12 is a method claim reciting two steps, first, the identity of the nucleotide at a particular position of the nucleotide molecule is determined; and second, the identity is compared to that at the corresponding position of SEQ ID NO: 1. Neither step entails any undue experimentation or unpredictability, and the other *Wands* factors are similarly irrelevant.

If this is a rejection based on a possible lack of utility, the Office Action did not explain why. In any event, it is respectfully submitted that even if the correlation between the SNP and the relevant phenotype were weak, a skilled artisan may still find the SNP useful (as that term is used under 35 U.S.C. § 101) because it would provide at least some value in a breeding/screening program. In other words, the SNPs have utility under 35 U.S.C. § 101.

***Claim Rejection under 35 U.S.C. § 102(a)***

Citing a web publication in IBISS of a bovine sequence allegedly containing nucleotide sequences identical to SEQ ID NO: 1, the Office Action rejected Claim 12 under 35 U.S.C. § 102(a). Applicants respectfully submit that this rejection is improper and should be withdrawn.

There is no evidence that the IBISS publication identified any polymorphic site. Even if it had, there is absolutely no evidence that the SNPs have any knowledge of a linkage to any phenotypic traits. There is absolutely no teaching or suggestion of a *method for testing* for the SNPs, or for using them in cattle breeding or screening programs.

Even with the oligonucleotide probe claims (currently not under examination), the fact that the original coding sequence is known does not anticipate a shorter fragment used as a probe. Neither will the probe claims be obvious in view of the original coding sequence, because there was no motivation for one of ordinary skills in the art to select a particular region and synthesize it for use as probes, or any motivation to design a particular probe with the SNP site to be in a particular position (e.g. at the very 3'-end or at the center of the oligonucleotide).

Accordingly, it is respectfully requested that the rejection over the prior art be withdrawn. In fact, applicants respectfully submit that all claims, including those that are withdrawn, are free of the prior art and are in condition for allowance.

In view of the above proposed amendment and foregoing remarks, Applicants believe the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 11-0553, under Order No. 2901803.3 from which the undersigned is authorized to draw.

Dated: January 19, 2007

Respectfully submitted,

By /Kening Li/

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